



2005-2035 Georgia Statewide Freight Plan



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1.0 Introduction

– The transport of freight is an issue that encompasses the highway (as trucking), rail, water, and air modes. While the needs, deficiencies and recommendations for each of these modes, including those related to freight, were addressed within the 2005-2035 SWTP, it is useful to provide a context for freight that addresses existing and future freight demand across all of these modes. During the development of the 2005-2035 SWTP, the Department conducted a comprehensive analysis of freight, including the origin and destinations for freight inside and outside of Georgia, the commodities that are carried and the modes that are utilized. The analysis completed as part of the 2005-2035 SWTP documented the flow of freight as tonnage, to better understand the demands placed on the transportation infrastructure, and the flow of freight as dollar value, to better understand the importance to the economy. This documentation is the 2005-2035 Statewide Freight Plan.

– Among the major findings of this Freight Plan are:

- Freight is a significant component of transportation demand in Georgia. More than 600 million tons of goods worth over \$1 trillion are transported to and from Georgia annually. Based on Georgia's 2000 population of 8.2 million, that equates to more than 77 tons and \$12,000 per person.
- By 2035, the tonnage of freight moved in Georgia is forecast to increase by 171 percent, or 2.7 percent per year, to 1.7 billion tons per year, and the value of freight moved in Georgia is forecast to increase by 204 percent, or 3.1 percent per year, to \$3.3 trillion.
- A substantial amount of Georgia's existing freight is only passing through Georgia. Through freight is currently 33 percent of the weight and 37 of the value of all freight moving to, from, and within Georgia. By 2035, through freight is forecast to be 29 percent of the weight and 33 percent of the value of the freight on Georgia's transportation system.
- The vast majority of Georgia's freight, 73 percent of the tonnage and 80 percent of the value, travels less than 500 miles from Georgia's borders. Since freight shipment by rail is competitive with trucking only at distances greater than 500 miles, this helps to explain the dominant mode share of trucking and the difficulty in changing that mode share.
- The commodities carried in Georgia are primarily those that support Georgia's service-oriented economy. The top five commodities ranked by weight are warehousing, chemicals, lumber, concrete, clay, glass, stone, and food products which make up 62 percent of all tonnage moved in Georgia. The top five commodities ranked by value are warehousing, transportation equipment, chemicals, food, and electrical equipment, which make up 67 percent of the value of all freight moved in Georgia. The shipment of freight to service industries requires reliable transportation.
- Trucking is the dominant mode for carrying freight in Georgia. The existing mode share of trucking is 72 percent of the tonnage and 82 percent of the value. By 2035, trucks' mode share is expected to be 79 percent by weight and 86 percent by value. The performance of the highway system is critical for transporting the overwhelming majority of Georgia's freight.
- Freight primarily originates and terminates in Georgia's urban counties. The top 15 counties in Georgia, ranked by the weight of freight that they ship or receive, represent over 64 percent of the tonnage and 66 percent of the value of all freight in Georgia. These counties are almost exclusively in

urban areas, with half in the Atlanta region and the remainder representing Georgia's other large metropolitan regions. The transport of freight both affects and is affected by congestion in these urban areas. This pattern will not significantly change in the future.

- The interstate highways carry the highest volumes of freight by both tonnage and value at present. While the interstate highway volumes are expected to increase by as much as 177 percent by 2035, a number of Governor's Road Improvement Program (GRIP) and other arterial highways are forecast to carry significant freight volumes in 2035. The preservation and improvement of the interstate system and the development of secondary highways to accommodate freight will be necessary to provide continued accessibility for Georgia's freight.
- CSX and Norfolk Southern railroads transport most of the rail freight in Georgia. While their track system provides less coverage than the highway system, sections of rail tracks carry freight tonnage comparable to the interstate highways.
- The water freight in Georgia is carried primarily through the Atlantic Ocean Ports of Savannah and Brunswick. Savannah transports more than 10 times the domestic tonnage of Brunswick with a similar relationship for international cargo. This relationship is forecast to continue.
- Air cargo in Georgia is almost exclusively shipped through Hartsfield-Jackson Atlanta International Airport (HJIA). Air cargo tonnage is currently a small share of freight in Georgia, but it carries higher value goods and is growing much faster than other modes.

2.0 Freight Flows

- Existing freight flows in Georgia consist of over 634 million tons per year with a value of over \$1 trillion.
- Almost one-third of the tonnage and value of freight traveling through Georgia has neither an origin nor a destination within Georgia.
- By 2035, the tonnage of freight moved in Georgia is forecast to increase by 171 percent, or 2.7 percent per year, to 1.7 billion tons per year, and the value of freight moved in Georgia is forecast to increase by 204 percent, or 3.1 percent per year, to \$3.3 trillion.

– Understanding the flow of freight by weight provides insights into the infrastructure needs in Georgia (e.g., roadway pavement and capacity, railroad tracks, etc.). Understanding the flow of freight by value provides insights into the economic impact of freight (e.g., cost of shipping, economic development, location of markets). In order to provide this understanding, the Department acquired the TRANSEARCH database from Reebie Associates (now Global Insight). This database is the accepted standard for freight analysis and is widely used in state and Federal studies. The complete 1998 TRANSEARCH database was the basis for the FHWA's still current Freight Analysis Framework. It is based on expansions of surveys of freight shippers and carriers of manufactured products. The 1998 Georgia portion of TRANSEARCH, the current database at that time, was acquired for use in the Central Georgia Corridor Study and the Interstate System Plan.

– The database does not include the initial movement of unprocessed commodities used as raw materials in agricultural and mining.¹ While it also does not include retail and intra-urban freight shipments, it does include the intrastate and interstate freight flows that constitute most of the freight moved on the State's transportation system. The database only shows the domestic portion of international shipments (for example, for an international shipment of containers by water from Europe through the Port of Savannah and then by rail from Savannah to Atlanta, only the domestic rail portion of the trip is included as a record²).

– An analysis of the 1998 data showed 634 million tons of freight moving to, from, within, and through Georgia. That freight was valued at \$1.1 trillion.³ The intrastate component of that freight is the largest by tonnage, but the other directions (inbound, outbound, and through) are also sizable and fairly evenly distributed as shown in Figures 2.1 and 2.2. Nearly 33 percent of the freight tonnage and 37 percent of the value moving on the transportation system in Georgia have neither an origin nor destination in the State, but rather serve the national economy.

¹ For example the initial movement of grain from a farm to a grain elevator is not included. However the shipment from the grain elevator to its next destination is included.

² International port shipments are discussed in the Port section of Technical Memorandum 1 – Existing Conditions.

³ While the Federal Highway Administration's (FHWA) Freight Analysis Framework (FAF) uses a similar database of freight flows, it is not identical to the Georgia TRANSEARCH database. It does include state-to-state flows for the entire United States and provides the ability to place Georgia in the context of other states with respect to freight. According to the FAF, the tonnage of freight to from and within Georgia in 1998 was 657 million tons, which was 4 percent of the tonnage of all freight moved in the U.S. According to the FAF, the value of freight to, from, and within Georgia is \$523 billion, 6 percent of the value of all freight moved in the U.S.

Figure 2.1 Directional Flows by Weight
 1998 Annual Tons (in Millions)

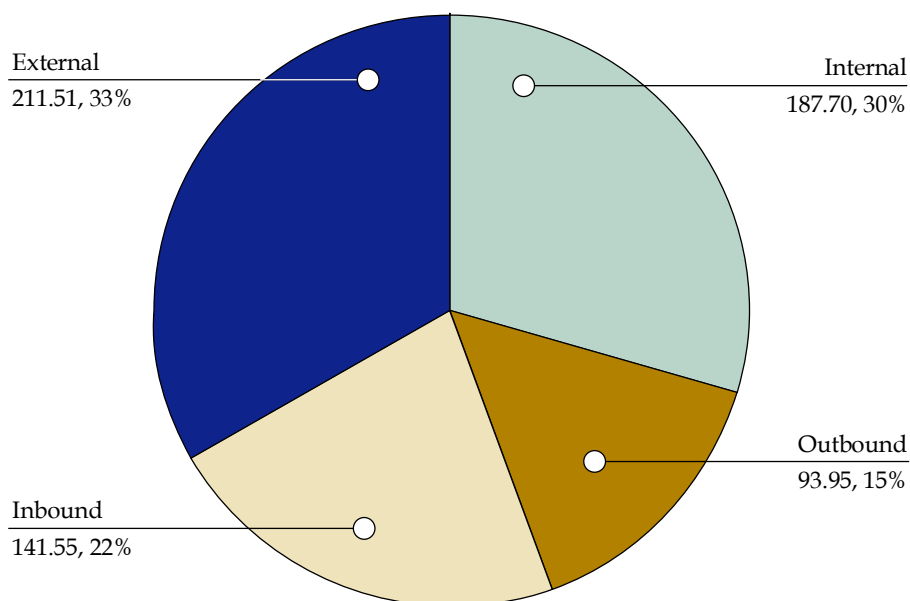
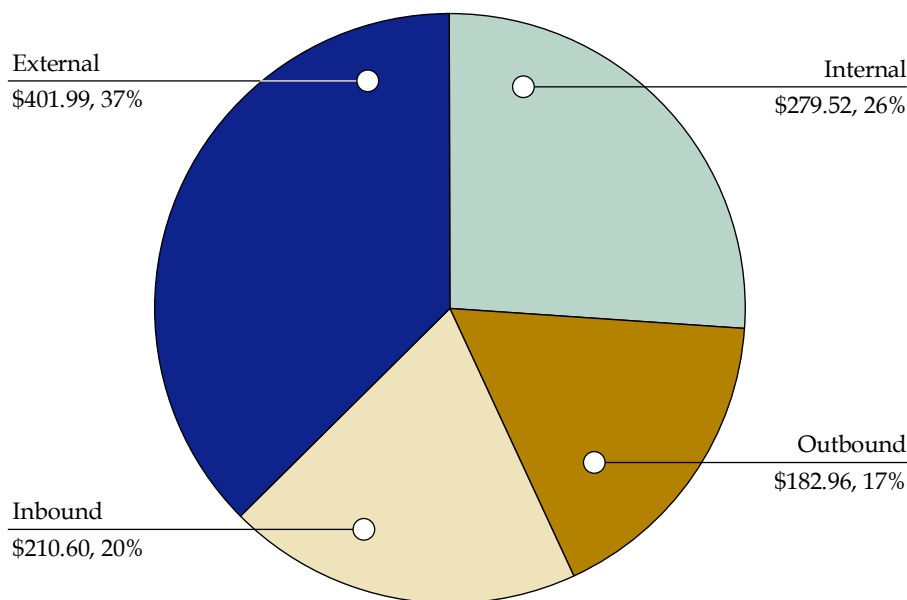


Figure 2.2 Directional Flows by Value
 1998 Annual Dollars (in Billions)



– The FHWA’s FAF calculated future freight flows using an econometric model of the United States. The state-to-state forecast of these freight flows through 2020 is available on a FHWA web site.⁴ These state-to-state growth rates by commodity were applied to the records in the Georgia TRANSEARCH database and were extrapolated to 2035. An analysis of the 2035 forecasts shows that tonnage is forecast to

⁴ http://ops.fhwa.dot.gov/freight/freight_analysis/faf/fafstate2state.htm.

increase by 2.7 percent per year. This represents a 171 percent increase in freight tonnage to 1.7 billion tons of freight moving to, from, within, and through Georgia in 2035. An analysis of the 2035 forecasts shows that the value of freight will increase by 3.1 per year. This represents a 204 percent increase in freight value to \$3.3 trillion. The intrastate component of that freight will remain the largest share by tonnage and that share is forecast to increase, but the other directions (inbound, outbound, through) are also sizable and fairly evenly distributed as shown in Figures 2.3 and 2.4. Nearly 29 percent of the freight tonnage and 33 percent of the value moving on the transportation system in 2035 in Georgia is forecast to have neither an origin nor a destination in the State, but rather serves the national economy.

Figure 2.3 Directional Flows by Weight
2035 Annual Tons (in Millions)

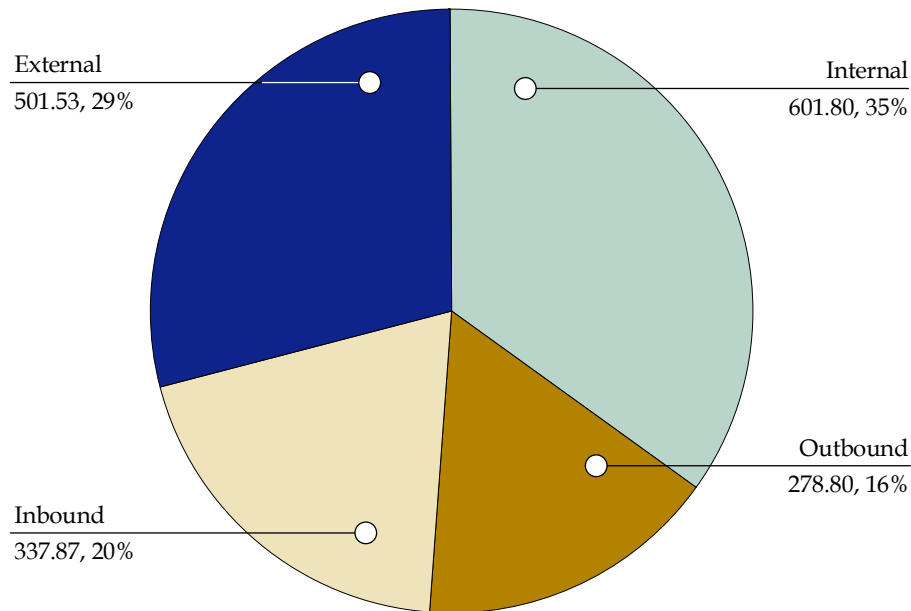
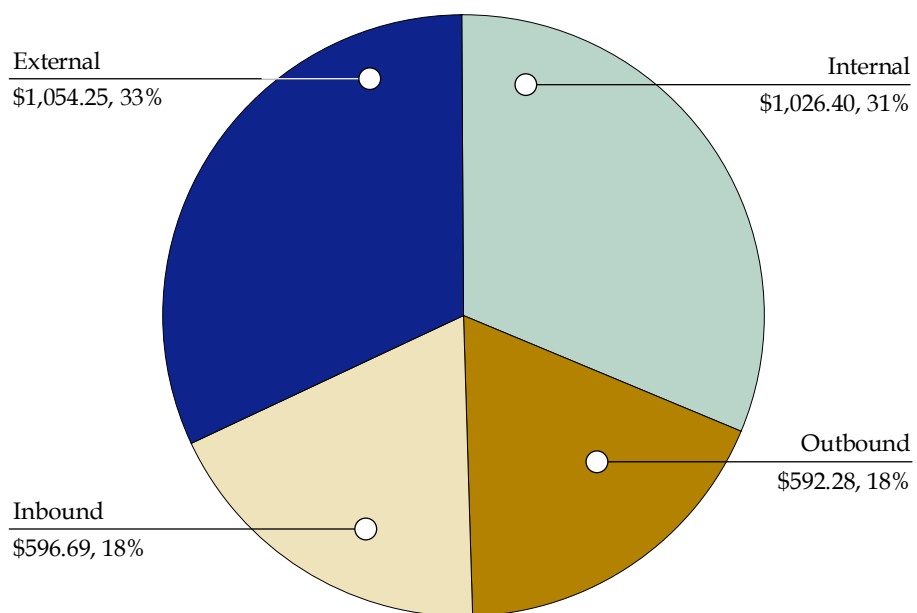


Figure 2.4 **Directional Flows by Value**
2035 Annual Dollars (in Billions)



3.0 Freight Origins and Destinations

- Georgia's existing trading partners are largely located within 500 miles of the Georgia county with which they trade. This is true for both inbound and outbound tonnage of which respectively 73 to 74 percent travel less than 500 miles as well as for inbound and outbound value, of which 80 to 87 percent respectively travel less than 500 miles.
 - Georgia's trading partners in 2035 are also forecast to be largely located within 500 miles.
 - The Miami economic region is currently Georgia's largest trading partner with respect to the value of freight. The shipment of coal by rail from Lexington, Kentucky to Georgia's power plants makes it Georgia's largest trading partner by tonnage.
- Georgia's trading partners provide markets for its producing industries and serve as suppliers to the State's consuming industries. The TRANSEARCH database includes, in addition to Georgia counties, information for the Bureau of Economic Analysis (BEA)⁵ economic areas outside of Georgia as origins and destinations. It also includes the domestic portion of international movements that begin or end in United States ports. Those markets in 1998, by U.S. BEA, are shown in Figures 3.1 and 3.2 for weight and Figures 3.3 and 3.4 for value. Table 3.1 shows in detail the inbound and outbound shipments of the trading partners.
- Georgia's outbound freight is principally destined for areas within 500 miles of Georgia's borders, which receive 73 percent of its outbound shipments by tonnage and also 73 percent of its outbound shipments by value. These percentages are forecast to change only slightly by 2035, when areas within 500 miles of Georgia's borders will receive 74 percent of its outbound shipments by tonnage and 73 percent of its shipments by value. This distance is significant for determining the mode by which freight travels since, at distances less than 500 miles, rail service is rarely cost-effective.
- Georgia's inbound freight by value also comes from areas within 500 miles, which are the origin of 87 percent of its inbound shipments by tonnage and nearly 80 percent of its inbound shipments by value. These percentages are forecast to change only slightly by 2035, when areas within 500 miles of Georgia's borders will receive 85 percent of its inbound shipments by tonnage and 79 percent of its shipments by value.

⁵ The BEA of the United States Census Bureau defines economic areas for analysis purposes. To facilitate regional economic analysis, each economic area consists of one or more economic nodes – metropolitan areas or similar areas that serve as centers of economic activity – and the surrounding counties that are economically related to the nodes.

Figure 3.1 1998 Annual Outbound Freight Tonnage Between Georgia and Trading Partners

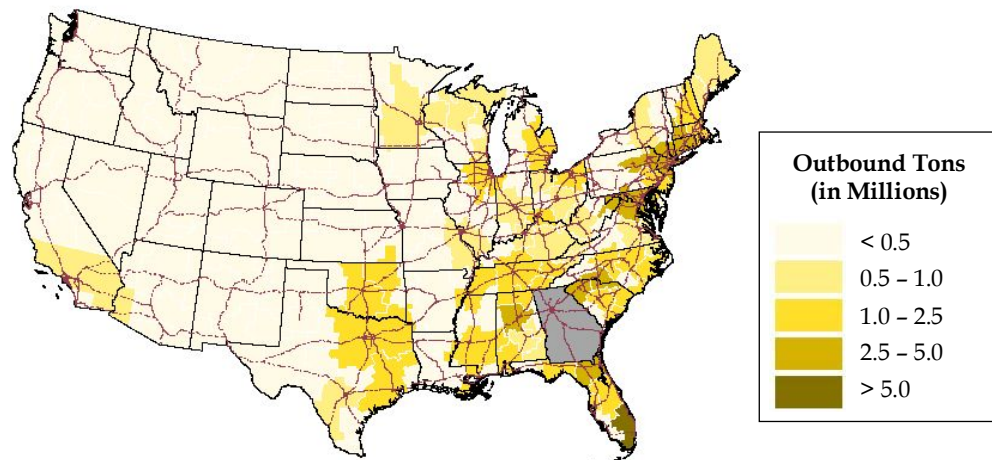


Figure 3.2 1998 Annual Inbound Freight Tonnage Between Georgia and Trading Partners

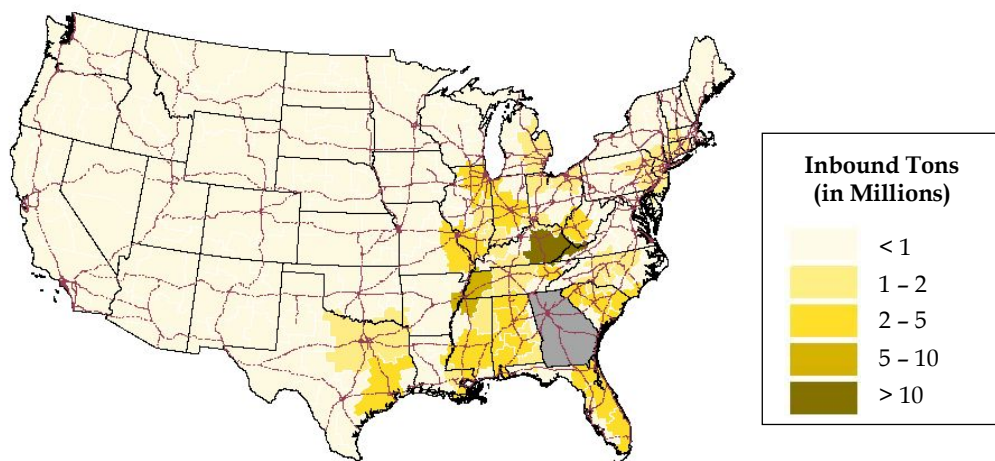


Figure 3.3 1998 Annual Outbound Freight Value Between Georgia and Trading Partners

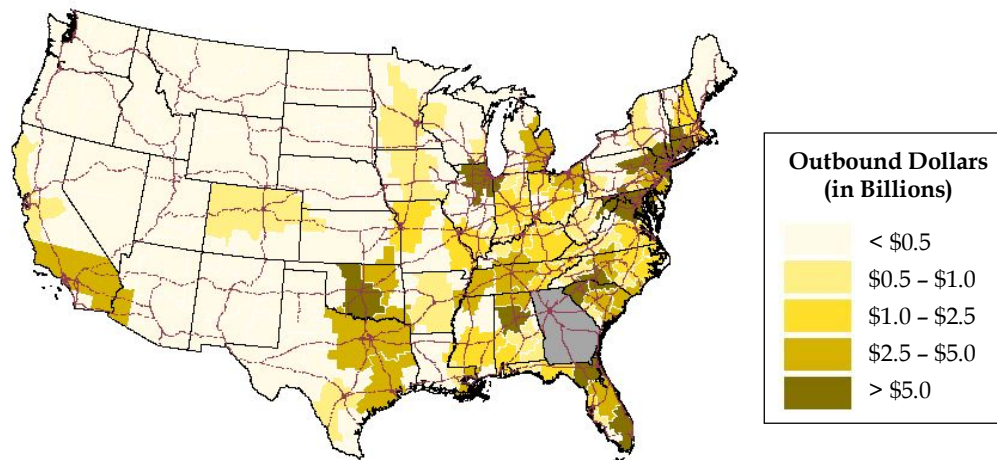
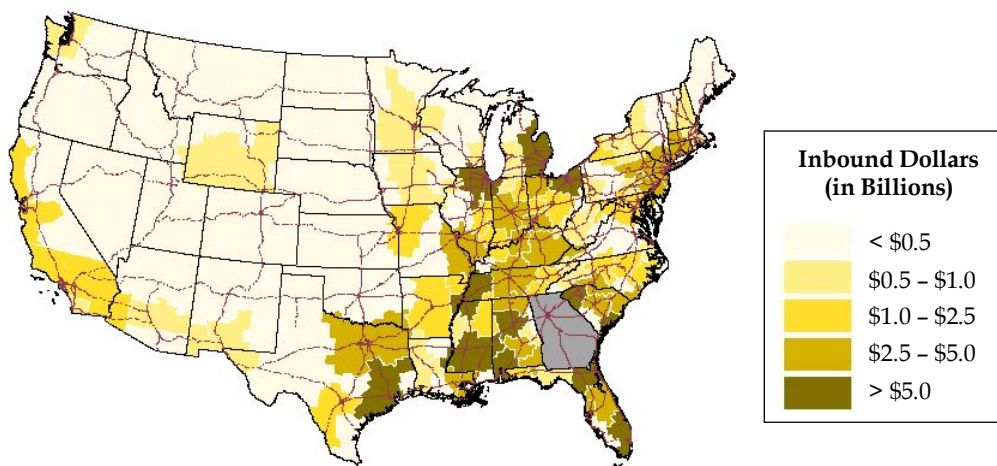


Figure 3.4 1998 Annual Inbound Freight Value Between Georgia and Trading Partners



– **Table 3.1 1998 Shipments Between Georgia and Major Trading Partners**
By Value and Weight

BEA	Billions of Dollars				Millions of Tons			
	Outbound from Georgia		Inbound to Georgia		Outbound from Georgia		Inbound to Georgia	
	Dollars	Percent	Dollars	Percent	Tons	Percent	Tons	Percent
Miami, FL	\$8.69	11.50%	\$7.89	3.75%	5.34	5.68%	4.36	3.08%
Chicago, IL	\$5.23	4.90%	\$9.20	4.37%	2.15	2.29%	4.67	3.30%
Jacksonville, FL	\$6.72	8.10%	\$6.63	3.15%	4.35	4.63%	3.59	2.53%
New York, NY	\$7.52	8.30%	\$4.02	1.91%	3.29	3.50%	1.34	0.94%
Birmingham, AL	\$5.43	5.30%	\$6.02	2.86%	3.59	3.82%	4.47	3.16%
Greenville, SC	\$5.85	11.60%	\$5.04	2.40%	3.34	3.55%	3.65	2.58%
Memphis, TN	\$4.59	2.80%	\$6.15	2.92%	2.49	2.65%	9.00	6.36%
Detroit, MI	\$4.58	2.10%	\$6.09	2.89%	1.20	1.28%	1.11	0.78%
Charlotte, NC	\$6.28	9.60%	\$3.53	1.68%	4.09	4.35%	1.82	1.29%
Charleston, SC	\$3.27	2.50%	\$6.42	3.05%	1.72	1.83%	2.90	2.05%
Cleveland, OH	\$2.98	1.30%	\$5.94	2.82%	1.40	1.49%	1.52	1.07%
Houston, TX	\$2.77	0.10%	\$5.80	2.75%	1.00	1.07%	3.24	2.29%
Mobile, AL	\$1.96	0.30%	\$6.40	3.04%	1.20	1.27%	3.72	2.63%
New Orleans, LA	\$3.49	0.80%	\$4.51	2.14%	1.32	1.41%	2.20	1.56%
Jackson, MS	\$2.04	0.30%	\$5.72	2.72%	1.09	1.16%	3.54	2.50%
Washington, DC	\$5.95	4.20%	\$1.76	0.83%	2.71	2.89%	0.81	0.57%
Huntsville, AL	\$2.96	0.90%	\$4.35	2.06%	1.39	1.48%	2.77	1.96%
Orlando, FL	\$4.01	3.80%	\$3.16	1.50%	2.27	2.42%	2.44	1.72%
Oklahoma City, OK	\$6.71	2.10%	\$0.20	0.09%	2.35	2.50%	0.16	0.11%
Dallas, TX	\$3.36	1.70%	\$3.16	1.50%	1.49	1.58%	1.36	0.96%
Nashville, TN	\$2.82	0.70%	\$3.42	1.62%	1.35	1.43%	1.79	1.26%
Philadelphia, PA	\$3.48	2.10%	\$2.71	1.29%	1.48	1.58%	1.16	0.82%
St. Louis, MO	\$2.20	0.10%	\$3.95	1.87%	0.76	0.81%	2.17	1.53%
Columbia, SC	\$2.74	1.60%	\$3.02	1.43%	1.42	1.51%	2.22	1.57%
Wilmington, NC	\$2.55	1.80%	\$3.08	1.46%	1.69	1.80%	2.30	1.63%
Greensboro, NC	\$3.05	2.10%	\$2.32	1.10%	1.56	1.66%	1.05	0.74%
All Others	\$71.74	39.21%	\$90.11	42.79%	37.92	40.37%	72.20	51.01%
Grand Total	\$182.96	2.10%	\$210.60	100.00%	93.95	100.00%	141.55	100.00%

• Source: Cambridge Systematics, Inc., 2005.

– The BEA areas in Table 3.1 are ranked by order of the total value of freight inbound to and outbound from Georgia. Thus, Miami is Georgia's largest trading partner with respect to value. As shown in Figure 3.1, although not shown in Table 3.1 which is ranked by value, Lexington, Kentucky with 22.6 million tons is Georgia's largest trading partner with respect to tonnage. This freight is almost exclusively low-value coal shipped by rail to Georgia's coal powered electrical utilities, which is why Lexington does not appear on the list of top trading partners ranked by value.

– The forecast markets in 2035, by U.S. BEA, are shown in Figures 3.5 and 3.6 for weight and Figures 3.7 and 3.8 for value. Table 3.2 shows in detail the inbound and outbound shipments of the trading partners. Georgia's outbound freight is forecast to be principally destined for areas within 500 miles of Georgia's borders, which is forecast to receive 73 percent of its outbound shipments by tonnage and over 35 percent of its outbound shipments by value. Georgia's inbound freight is also forecast to come from areas within 500 miles, which are forecast to be the origin of 85 percent of its inbound shipments by tonnage and nearly 85 percent of its inbound shipments by value.

Figure 3.5 2035 Annual Outbound Freight Tonnage Between Georgia and Trading Partners

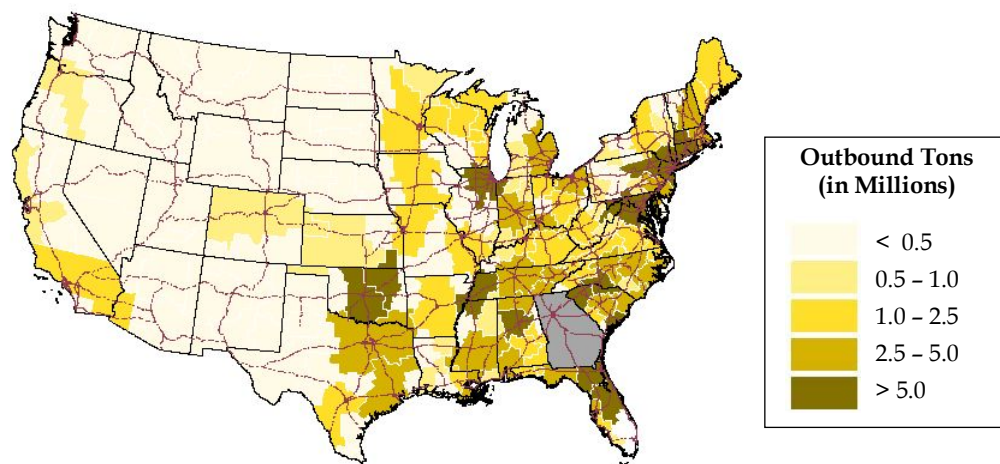


Figure 3.6 2035 Annual Inbound Freight Tonnage Between Georgia and Trading Partners

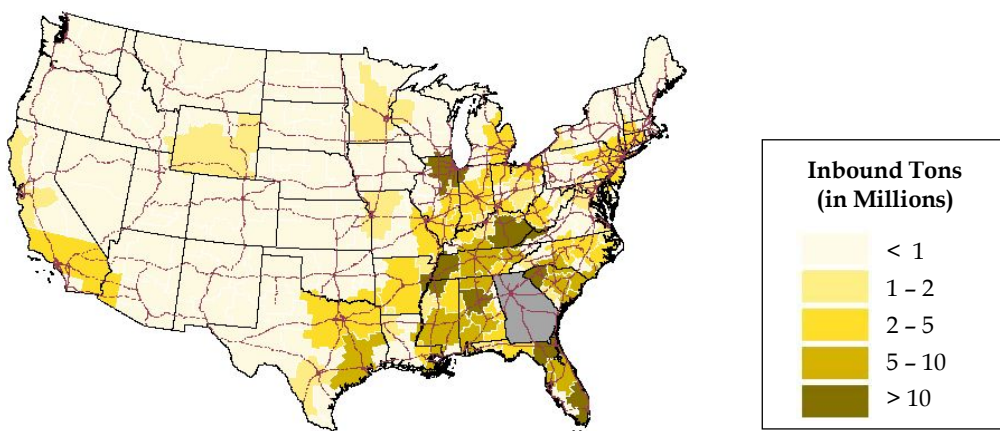


Figure 3.7 2035 Annual Outbound Freight Value Between Georgia and Trading Partners

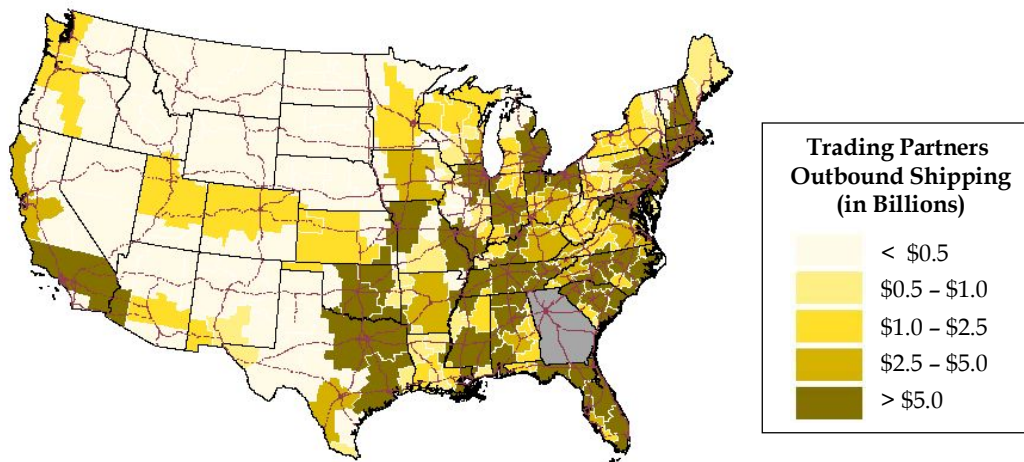
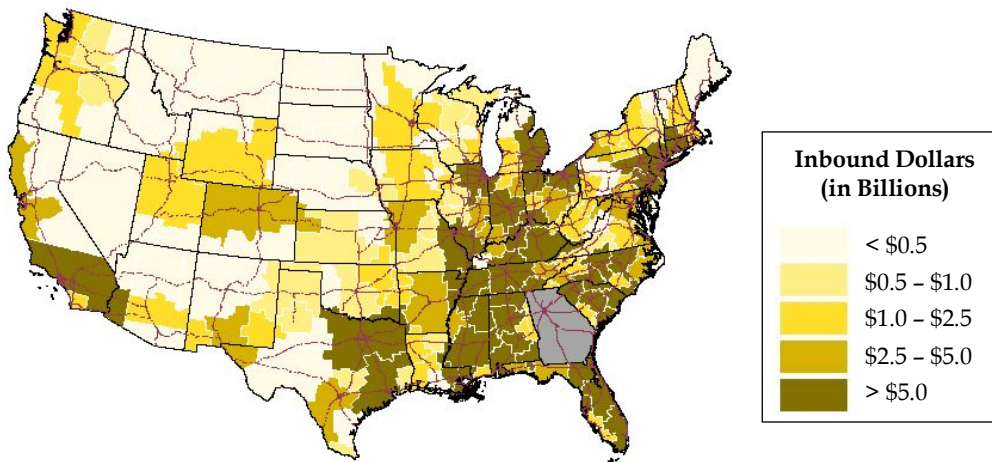


Figure 3.8 2035 Annual Inbound Freight Value Between Georgia and Trading Partners



– Table 3.2 2035 Shipments Between Georgia and Major Trading Partners
By Value and Weight

BEA	Billions of Dollars				Millions of Tons			
	Outbound from Georgia		Inbound to Georgia		Outbound from Georgia		Inbound to Georgia	
	Dollars	Percent	Dollars	Percent	Tons	Percent	Tons	Percent
Miami, FL	\$29.32	4.95%	\$28.89	4.84%	16.05	5.76%	14.24	4.21%
Jacksonville, FL	\$23.28	3.93%	\$24.04	4.03%	13.10	4.70%	11.66	3.45%
Birmingham, AL	\$18.78	3.17%	\$19.86	3.33%	10.18	3.65%	13.70	4.05%
New York, NY	\$25.60	4.32%	\$11.12	1.86%	9.66	3.47%	3.62	1.07%
Chicago, IL	\$16.58	2.80%	\$20.06	3.36%	5.94	2.13%	10.70	3.17%

Greenville, SC	\$19.88	3.36%	\$16.58	2.78%	10.10	3.62%	10.74	3.18%
Charleston, SC	\$11.79	1.99%	\$23.13	3.88%	5.38	1.93%	9.22	2.73%
Memphis, TN	\$14.13	2.39%	\$17.80	2.98%	7.15	2.56%	17.34	5.13%
Charlotte, NC	\$19.86	3.35%	\$10.81	1.81%	12.05	4.32%	5.24	1.55%
Detroit, MI	\$15.93	2.69%	\$11.99	2.01%	3.53	1.27%	2.66	0.79%
Orlando, FL	\$14.44	2.44%	\$10.99	1.84%	6.99	2.51%	7.46	2.21%
Mobile, AL	\$6.32	1.07%	\$18.76	3.14%	3.31	1.19%	9.97	2.95%
Huntsville, AL	\$10.20	1.72%	\$12.98	2.18%	4.20	1.50%	7.94	2.35%
Dallas, TX	\$10.59	1.79%	\$12.52	2.10%	4.65	1.67%	4.29	1.27%
Jackson, MS	\$6.48	1.09%	\$16.03	2.69%	3.01	1.08%	9.46	2.80%
Houston, TX	\$8.82	1.49%	\$12.85	2.15%	3.21	1.15%	6.67	1.97%
Cleveland, OH	\$9.62	1.62%	\$11.47	1.92%	4.10	1.47%	3.39	1.00%
Oklahoma City, OK	\$19.72	3.33%	\$0.60	0.10%	7.71	2.76%	0.31	0.09%
Washington, DC	\$15.95	2.69%	\$3.90	0.65%	7.95	2.85%	1.32	0.39%
Columbia, SC	\$9.38	1.58%	\$10.28	1.72%	4.37	1.57%	6.50	1.92%
Nashville, TN	\$9.22	1.56%	\$9.90	1.66%	4.24	1.52%	5.07	1.50%
Los Angeles, CA	\$9.74	1.64%	\$9.28	1.56%	2.21	0.79%	2.41	0.71%
New Orleans, LA	\$8.74	1.48%	\$10.07	1.69%	3.58	1.28%	5.11	1.51%
Wilmington, NC	\$7.79	1.32%	\$9.79	1.64%	4.58	1.64%	6.63	1.96%
Philadelphia, PA	\$10.58	1.79%	\$6.88	1.15%	4.22	1.51%	2.83	0.84%
Tulsa, OK	\$15.73	2.66%	\$1.07	0.18%	6.20	2.23%	0.42	0.12%
All Others	\$223.82	37.79%	\$255.06	42.75%	111.12	39.86%	158.95	47.05%
Grand Total	\$592.28	100.00%	\$596.69	100.00%	278.80	100.00%	337.87	100.00%

- Source: Cambridge Systematics, Inc., 2005.

– The BEA areas in Table 3.2 are ranked by order of the forecast 2035 total value of freight shipped inbound to and outbound from Georgia. Thus, Miami is forecast to remain Georgia's largest trading partner with respect to value. As shown in Figure 3.6, although not shown in Table 3.2, Lexington, Kentucky, with 30.2 million tons, is forecast to remain Georgia's largest trading partner with respect to tonnage.

4.0 Commodities

- The largest commodities, ranked by weight, currently moving in Georgia are primarily the bulk commodities of clay, concrete, glass, stone, lumber, and chemicals. The highest single commodity ranked by tonnage is warehousing and distribution freight. These are forecast to remain the largest commodities by weight in 2035.
 - The largest commodities, ranked by value, currently moving in Georgia are also warehousing and distribution, followed by transportation equipment, chemicals, food, and a variety of high-technology commodities. These are forecast to remain the largest commodities by value in 2035.
- The importance of certain commodities in Georgia, as determined by their share of freight, is quite different when ranked by weight or value. Modes that carry the largest share of weight place the most demand on the freight infrastructure. The commodities that these modes carry tend to be high-density and low-value, require low shipping costs, and are not time-sensitive. The distribution of commodities by weight in 1998 is shown in Figure 4.1. The top commodity by weight moving in Georgia is flows to and from distribution⁶ centers. Three of the other five freight commodities moving in Georgia by tonnage are high-weight, low-value bulk shipments: clay, concrete, glass, and stone; lumber; and chemicals.
- As shown in Figure 4.1, the top five freight commodities overall moving in Georgia by value are warehousing and distribution, transportation equipment, chemicals, food products, and electrical machinery. (While most chemicals by weight are low-value commodities, this category also includes high-value pharmaceuticals and cosmetics.)
- The forecast distribution of commodities by weight in 2035 is shown in Figure 4.2. The top commodities by weight moving in Georgia are forecast to remain flows to and from distribution centers. While the other top five commodities by weight are forecast to remain the same as in 1998, the rank order is forecast to change.
- As shown in Figure 4.3, the top freight commodities overall moving in Georgia in 1998 by value are warehousing and distribution, transportation equipment, chemicals, food, and high-technology freight (electrical equipment, machinery, metals and metal products).
- As shown in Figure 4.4, the top freight commodities overall moving in Georgia in 2035 by value are forecast to remain mostly unchanged from those in 1998, while the rank order is forecast to change slightly. The only exception is that building materials (clay, concrete, glass, and stone) is forecast to supplant textiles in the list of top 10 commodities.

⁶ Distribution centers are rail terminal, airports, water ports, and large trucking warehouses that ship and receive freight between states or metropolitan areas. It does not include centers that ship freight primarily within metropolitan areas.

Figure 4.1 1998 Annual Commodity Weight

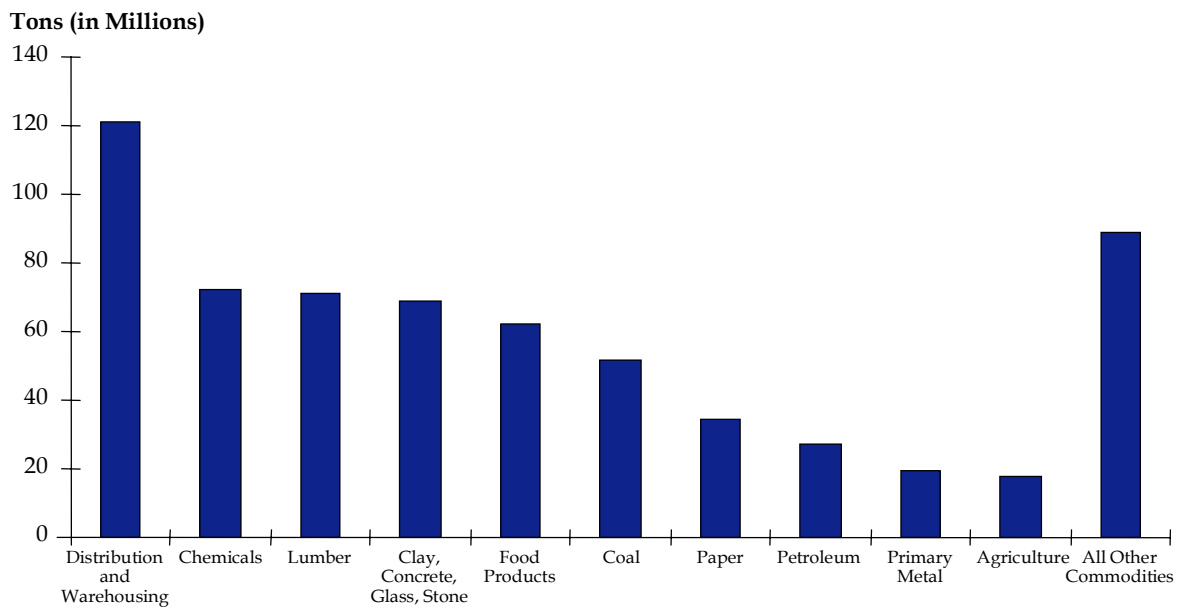


Figure 4.2 2035 Annual Commodity Weight

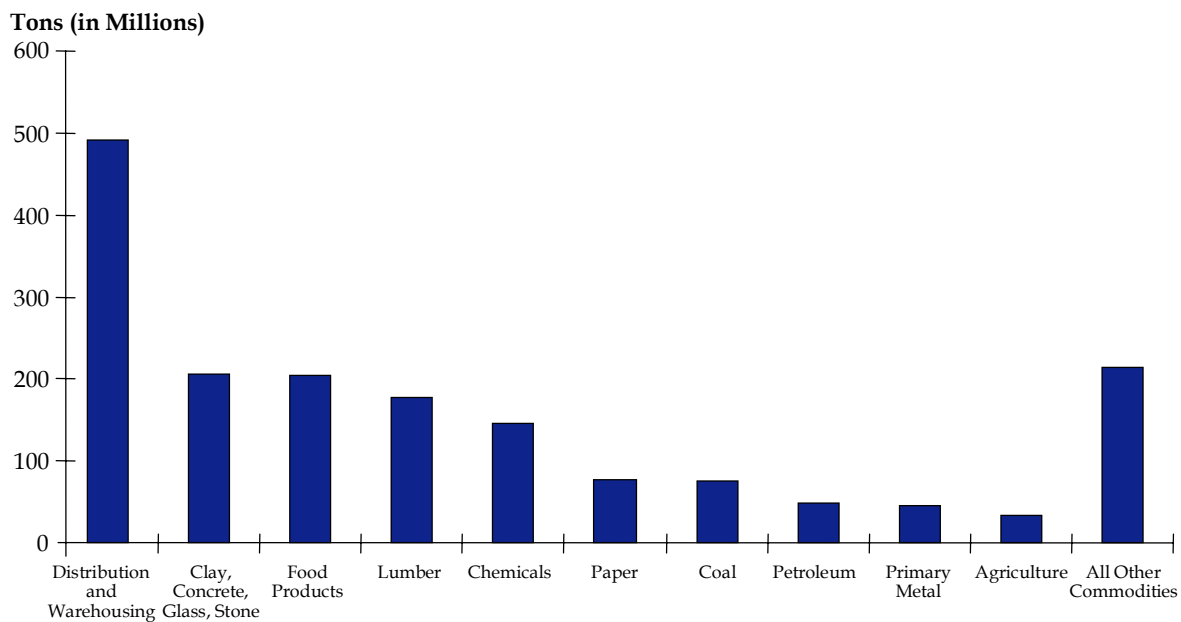


Figure 4.3 1998 Annual Commodity Value

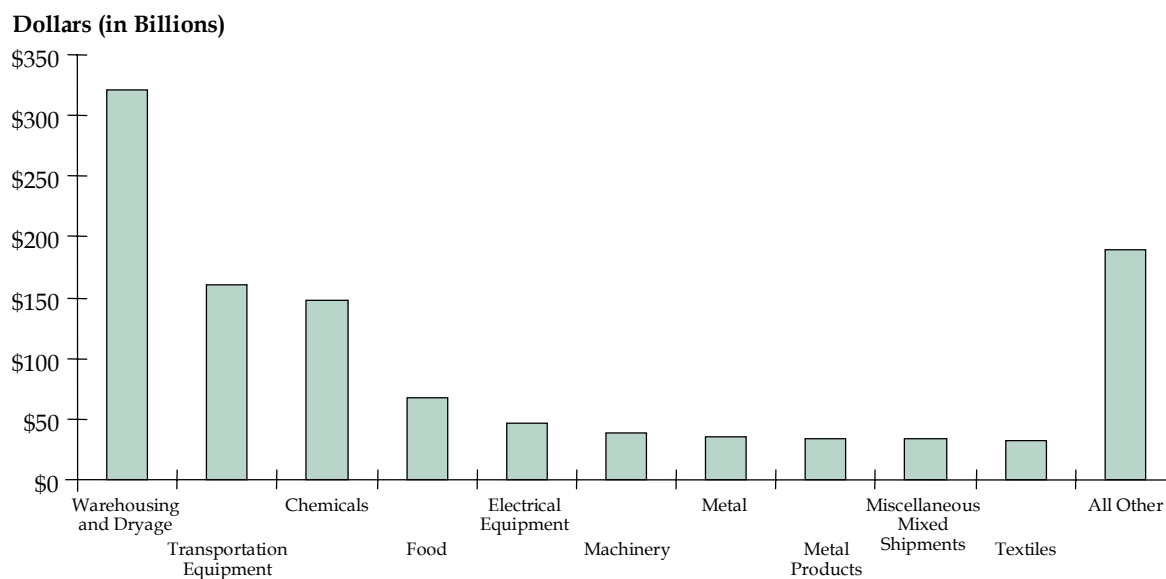
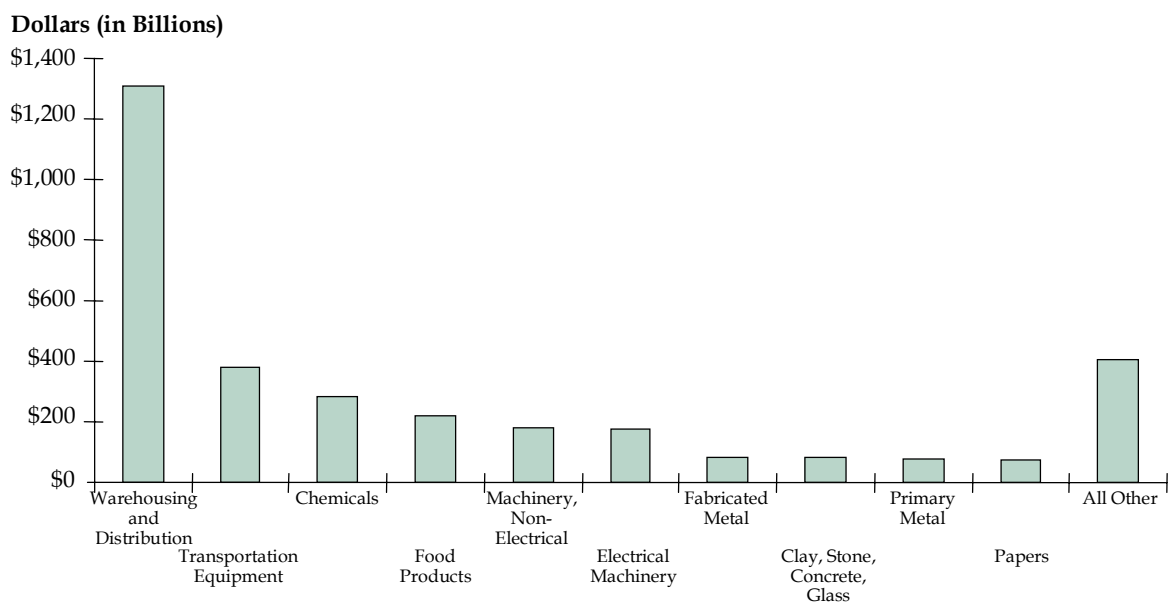


Figure 4.4 2035 Annual Commodity Value



5.0 Modes

- Trucks carry most of the freight in Georgia by tonnage and carry almost all of the intrastate shipment of freight. Trucks carry an even larger share of the value of freight moving in Georgia.
 - By 2035, the truck mode share by weight is expected to increase to 79 percent from its current share of 72 percent, while rail freight is forecast to decline from 17 percent of the value at present to 12 percent of the value.
 - The commodities moving by truck are forecast to grow the most by 2035 and consequently the mode share of tonnage carried by truck is forecast to increase.
 - Rail carries almost a quarter of the freight tonnage in Georgia; however, this is heavily dominated by inbound shipments.
 - Water and air both carry a very small percentage of Georgia's domestic freight by tonnage.
 - Domestic air cargo carries 2.2 percent of the value of inbound domestic freight and 1.0 percent of the value of outbound domestic freight, compared to less than 1 percent of the tonnage of both inbound and outbound freight.
- Overall, trucks carry the largest proportion of freight in Georgia. This is evident in each of the four trip types shown in Table 5.1. Georgia's major ports (Savannah and Brunswick and to a lesser degree Bainbridge) are the principal locations serving Georgia's domestic water freight. However, the ports of Savannah and Brunswick handle primarily international cargo and only the domestic landside portion of the shipment (the rail or truck movement to or from the port) is reported in TRANSEARCH. In addition to the tonnage shown in Table 5.1, the port of Savannah, according to the U.S. Army Corps of Engineers,⁷ handles 21.5 million tons of international cargo in addition to its 1 million tons of domestic cargo and the port of Brunswick handles 1.875 million tons of international cargo in addition to its 12,000 tons of domestic cargo. Air cargo accounts for a negligible percentage of tons of Georgia's domestic freight movement.

⁷ *Waterborne Commerce of the United States: Calendar Year 2003: Part 1 – Waterways and Harbors Atlantic Coast*, Department of the Army Corps of Engineer, Institute for Water Resources IWR-WCUS-03-1.
Cambridge Systematics, Inc.

– **Table 5.1 1998 Mode by Trip Type**
Millions of Tons

Mode	Intrastate	Outbound	Inbound	Through	Total
Truck	172.48 (91.90%)	73.92 (78.70%)	77.09 (54.50%)	135.15 (63.90%)	458.63 (72.30%)
Rail	14.73 (7.80%)	19.83 (21.10%)	63.34 (44.70%)	70.49 (33.30%)	168.38 (26.50%)
Water	0.49 (0.30%)	0.09 (0.10%)	0.39 (0.30%)	5.35 (2.50%)	6.32 (1.00%)
Air	0.01 (0.00%)	0.12 (0.10%)	0.73 (0.50%)	0.52 (0.20%)	1.37 (0.20)%
Total	187.70 (100.00%)	93.95 (100.00%)	141.55 (100.00%)	211.51 (100.00%)	634.71 (100.00%)

• Source: Cambridge Systematics, Inc., 2005.

– As shown in Table 5.2, trucks are forecast to carry an even larger share of Georgia's freight in the future increasing from 72 percent of all the total tons shipped in 1998 to 79 percent in 2035. This increasing market share is forecast to come primarily at the expense of a decreasing market share for rail which is forecast to decline from 26 percent in 1998 to 20 percent in 2035. This is principally due to the changes forecast in the trading partners and commodities carried, which are primarily in high value, time sensitive goods more likely to be carried by truck. The share of freight tonnage forecast to be carried by water will decline while the share forecast to be carried by air will increase, but each mode is still forecast to carry less than 1 percent of all domestic tonnage.

– **Table 5.2 2035 Mode by Trip Type**
Millions of Tons

Mode	Intrastate	Outbound	Inbound	Through	Total
Truck	567.73 (94.30%)	227.86 (81.70%)	220.91 (65.40%)	347.18 (69.20%)	1,363.69 (79.30%)
Rail	32.91 (5.50%)	50.26 (18.00%)	113.33 (33.50%)	143.6 (28.60%)	340.1 (19.80%)
Water	1.14 (0.20%)	0.18 (0.10%)	0.82 (0.20%)	8.73 (1.70%)	10.87 (0.60%)
Air	0.02 (0.00%)	0.5 (0.20%)	2.8 (0.80%)	2.02 (0.40%)	5.33 (0.30%)
Total	601.8 (100.00%)	278.8 (100.00%)	337.87 (100.00%)	501.53 (100.00%)	1,719.99 (100.00%)

• Source: Cambridge Systematics, Inc., 2005.

– Goods carried by trucks tend to have higher value-weight ratios than goods carried by rail and water. Therefore, trucking carries a slightly higher percentage of the value of the goods shipped in the State than it does the percentage of tonnage shipped. Table 5.3 shows that the truck mode carries 82 percent of the total value of all shipments, compared to 72 percent of all shipments in terms of tons. Conversely, the rail

mode carries 17 percent of the total value of all shipments compared to 26 percent of the total tonnage. The total mode share carried by air and water is less than 1 percent of all freight carried, although air cargo is 1.7 percent of the value of all inbound freight.

– **Table 5.3 1998 Mode by Trip Type**
Billions of Dollars

Mode	Intrastate	Outbound	Inbound	Through	Total
Truck	273.28 (97.80%)	154.85 (84.60%)	154.72 (73.50%)	296.87 (73.90%)	879.72 (81.80%)
Rail	6.12 (2.20%)	27.76 (15.20%)	52.31 (24.80%)	100.65 (25.00%)	186.84 (17.40%)
Water	0.1 (0.00%)	0.04 (0.00%)	0.08 (0.00%)	1.72 (0.40%)	1.93 (0.20%)
Air	0.03 (0.00%)	0.32 (0.20%)	3.49 (1.70%)	2.76 (0.70%)	6.59 (0.60%)
Total	279.52 (100.00%)	182.96 (100.00%)	210.6 (100.00%)	401.99 (100.00%)	1,075.07 (100.00%)

• Source: Cambridge Systematics, Inc., 2005.

– Similar to the forecast of mode share by tonnage, trucks are forecast to carry an increasing share of the value of Georgia's freight. As shown in Table 5.4, the mode share for trucks of the value of freight is forecast to increase from 82 percent in 1998 to 86 percent in 2035. Again this increase is primarily at the expense of the share carried by rail which is forecast to decrease from 17 percent in 1998 to 13 percent in 2035. As was the case for the forecast of mode share by value, the mode share carried by water is forecast to decrease between 1998 and 2035 while that carried by air is forecast to increase. However, each mode is still forecast to carry less than 1 percent of the value of domestic freight. The mode share of the inbound market for air cargo by value is forecast to increase by almost 30 percent, from 1.7 percent to 2.2 percent.

– **Table 5.4 2035 Mode by Trip Type**
Billions of Dollars

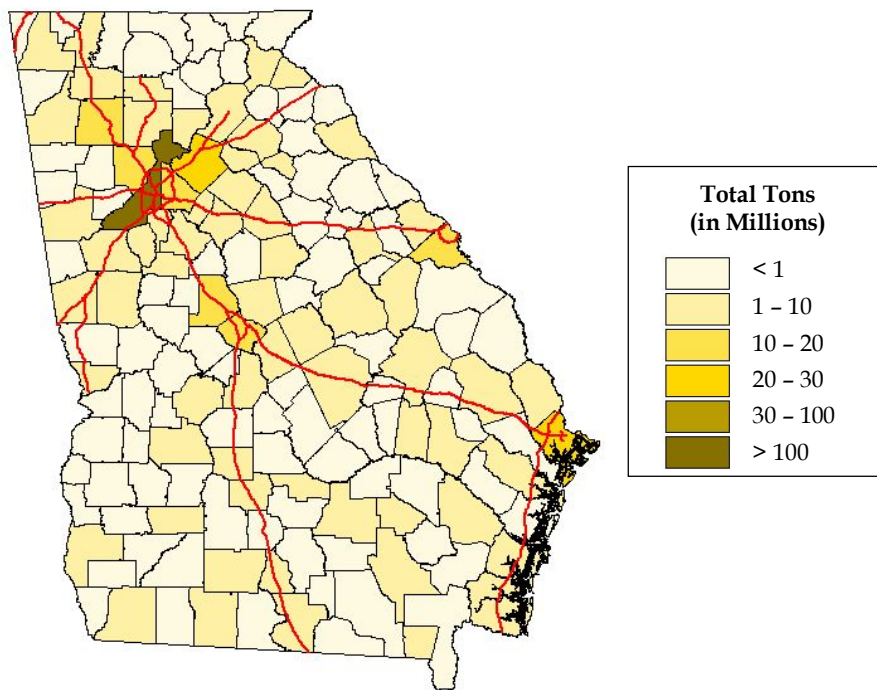
Mode	Intrastate	Outbound	Inbound	Through	Total
Truck	1,010.49 (98.40%)	516.46 (87.20%)	474.06 (79.40%)	822.63 (78.00%)	2,823.64 (86.40%)
Rail	15.58 (1.50%)	74.43 (12.60%)	109.52 (18.40%)	218.44 (20.70%)	417.98 (12.80%)
Water	0.22 (0.00%)	0.05 (0.00%)	0.17 (0.00%)	2.56 (0.20%)	3.00 (0.10%)
Air	0.11 (0.00%)	1.33 (0.20%)	12.94 (2.20%)	10.62 (1.00%)	25.00 (0.80%)
Total	1,026.40 (100.00%)	592.28 (100.00%)	596.69 (100.00%)	1,054.25 (100.00%)	3,269.62 (100.00%)

- Source: Cambridge Systematics, Inc., 2005.

6.0 Georgia Counties

- The volume of freight, both by tonnage and by value, is concentrated in a few, primarily urban, counties.
 - In 1998, the top 15 counties ranked by tonnage carried 64 percent of the freight originating or terminating in Georgia. Fulton County, Atlanta, was the origin or destination of 24 percent of Georgia's tonnage. Altogether, the 7 Atlanta urban area counties in the top 15 handled 42 percent of Georgia's freight. Of the 8 remaining counties in the top 15, 7 were the largest counties of other Georgia urban areas.
 - In 2035, the top 15 counties ranked by tonnage are forecast to carry 66 percent of the freight originating or terminating in Georgia. Fulton County, Atlanta, is forecast to be the origin or destination of 26 percent of Georgia's tonnage. Altogether the six Atlanta urban area counties in the top 15 are forecast to handle 43 percent of Georgia's freight. Of the 9 remaining counties in the top 15, 8 are forecast to be the largest counties of other Georgia urban areas.
 - In 1998, the top 15 counties ranked by value carried 74 percent of the freight originating or terminating in Georgia. Fulton County, Atlanta, was the origin or destination of 30 percent of Georgia's tonnage. Altogether the five Atlanta urban area counties in the top 15 handled 49 percent of Georgia's freight. All of the 10 remaining counties in the top 15 were the largest counties of other Georgia urban areas.
 - In 2035, the top 15 counties ranked by value are forecast to carry 74 percent of the freight originating or terminating in Georgia. Fulton County, Atlanta, is forecast to be the origin or destination of 31 percent of Georgia's tonnage. Altogether the five Atlanta urban area counties in the top 15 are forecast to handle 50 percent of Georgia's freight. All of the 10 remaining counties in the top 15 are forecast to be the largest counties of other Georgia urban areas.
- The counties with the largest existing volumes of domestic freight by tonnage are those counties located in urban areas where freight is produced and consumed. As shown in Figure 6.1 and Table 6.1, the top freight flows ranked by tonnage are almost exclusively to counties within urban areas. The exception is Monroe County which is included in the Top 15 Counties by tonnage because of the shipment of coal by rail to its Scherer electric power plant. Fulton County ships and receives the highest volume by tonnage in Georgia, an amount that is more than 3.6 times that of the second ranked county, Chatham (Savannah). In addition to Fulton County, the Atlanta urban area contains six of the top 15 counties ranked by total tonnage.

Figure 6.1 1998 Tonnages by County for All Modes



– Table 6.1 1998 County Tonnage Flows by Mode
Tons to, from, and within (in Thousands)

County	Urban Area	Trucks	Rail	Water	Air	Total	
Fulton	Atlanta	90,546	10,073	–	–	848	101,467
Chatham	Savannah	21,602	5,737	954		3	28,296
Gwinnett	Atlanta	20,023	2,071	–	–	–	22,093
Richmond	Augusta	11,234	4,701	–	–	0	15,935
DeKalb	Atlanta	13,667	1,332	–	–	–	14,999
Bibb	Macon	11,553	2,019	–	–	0	13,572
Cobb	Atlanta	10,275	2,014	–	–	–	12,288
Monroe	N/A	166	11,089	–	–	–	11,255
Bartow	Atlanta	2,346	8,653	–	–	–	10,999
Hall	Gainesville	6,277	2,139	–	–	–	8,416
Clayton	Atlanta	6,718	596	–	–	–	7,314
Carroll	Atlanta	2,815	4,157	–	–	–	6,973
Floyd	Rome	3,444	3,119	–	–	–	6,563
Muscogee	Columbus	5,752	576	–	–	0	6,329
Glynn	Brunswick	4,344	1,464	–	12	0	5,819
Remaining 144 Counties		112,719	38,155	–	4	3	150,873
Grand Total		323,484	97,891	970	854		423,199

- Note: In this and in subsequent tables, a value of “0” means that there is tonnage but it rounds to 0. A value of “–” means there is no tonnage for that mode.

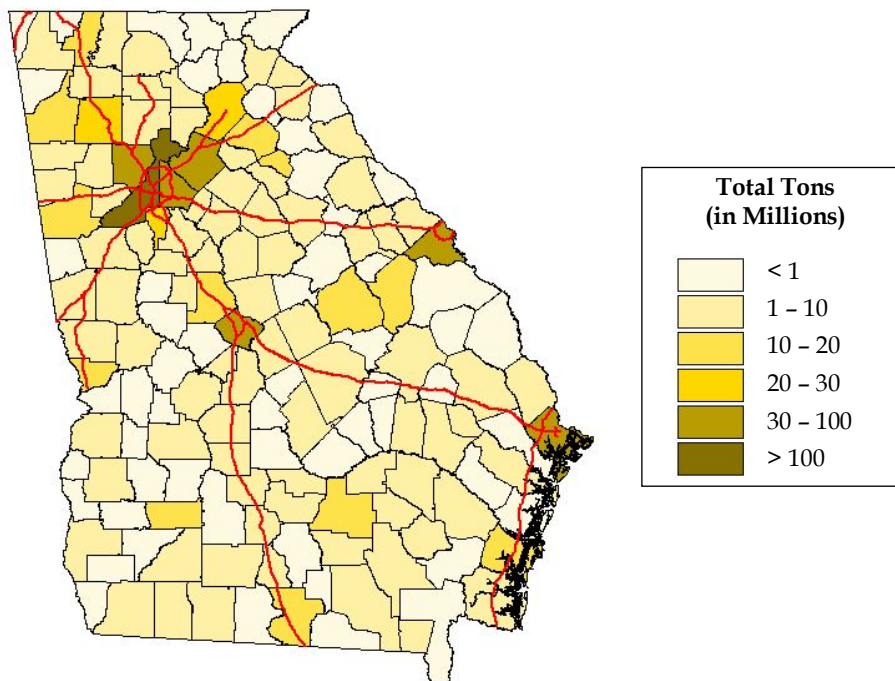
– The counties with the largest existing volumes of domestic freight by value are those counties located in urban areas where freight is produced and consumed. As shown in Figures 6.2 and Table 6.2, the top freight flows ranked by value are exclusively to counties within urban areas. Fulton County ships and

receives the highest volume by value in Georgia, an amount that is more than 3.5 times that of the second ranked county, Gwinnett County. In addition to Fulton County, the Atlanta urban area contains four of the top 15 counties ranked by total tonnage.

– The counties with the largest 2035 forecast volumes of domestic freight by tonnage remain those counties located in urban areas where freight is produced and consumed. As shown in Figure 6.3 and Table 6.3, the top freight flows ranked by tonnage are almost exclusively to counties within urban areas. The exception is Monroe County which is included in the top 15 counties by tonnage because of the shipment of coal by rail to its Georgia Power’s Scherer electric power plant. Fulton County ships and receives the highest volume by tonnage in Georgia, an amount that is forecast to increase by 215 percent. Further, the forecast tonnage for Fulton County is forecast to increase to an amount that is 3.8 times that of the second ranked county, Chatham (Savannah). In addition to Fulton County, the Atlanta urban area contains six of the top 15 counties ranked by total tonnage.

– A similar pattern by value for 2035 is shown in Figure 6.4 and Table 6.4.

Figure 6.2 2035 Tonnages by County for All Modes

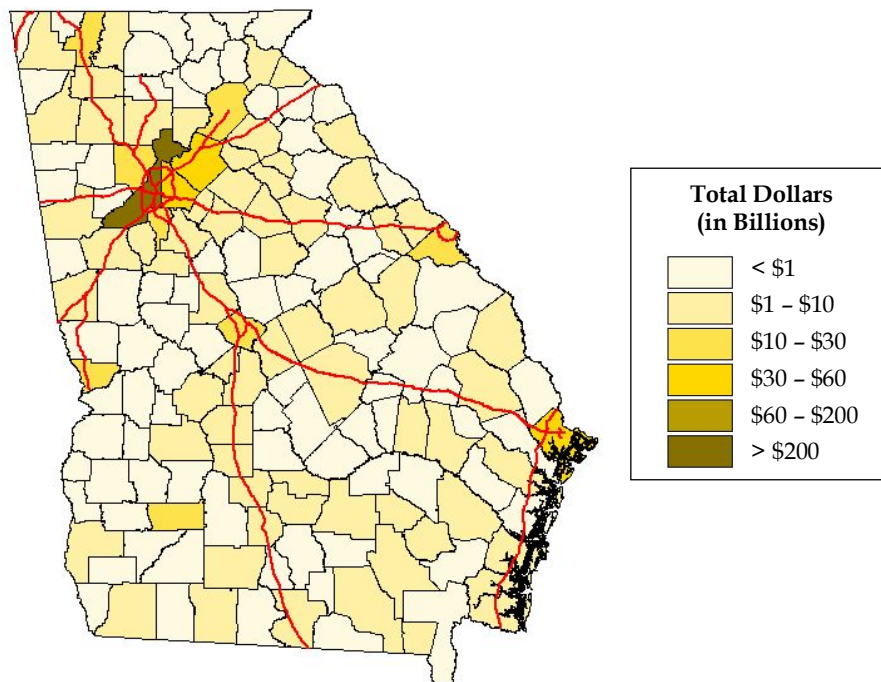


– **Table 6.2 1998 County Value Flows by Mode**
Dollars to, from, and within (in Millions)

County	Urban Area	Trucks	Rail	Water	Air	Total
Fulton	Atlanta	\$173,778	\$27,225	\$0	\$3,801	\$204,804
Gwinnett	Atlanta	\$47,926	\$9,100	\$0	\$0	\$57,026
Chatham	Savannah	\$40,746	\$7,202	\$211	\$15	\$48,174
DeKalb	Atlanta	\$26,658	\$3,553	\$0	\$0	\$30,211
Richmond	Augusta	\$20,817	\$4,320	\$0	\$1	\$25,137
Cobb	Atlanta	\$21,771	\$437	\$0	\$0	\$22,209
Bibb	Macon	\$20,467	\$1,054	\$0	\$0	\$21,521
Whitfield	Dalton	\$12,440	\$1,573	\$0	\$0	\$14,013
Clayton	Atlanta	\$12,957	\$985	\$0	\$0	\$13,942
Muscogee	Columbus	\$11,752	\$229	\$0	\$2	\$11,984
Dougherty	Albany	\$11,030	\$361	\$0	\$16	\$11,407
Hall	Gainesville	\$8,423	\$2,068	\$0	\$0	\$10,491
Glynn	Brunswick	\$7,588	\$1,317	\$3	\$0	\$8,908
Clarke	Athens	\$7,281	\$631	\$0	\$0	\$7,911
Lowndes	Valdosta	\$5,271	\$2,472	\$0	\$0	\$7,743
Remaining 144 Counties		\$153,937	\$23,656	\$1	\$0	\$177,596
Grand Total	Grand Total	\$582,849	\$86,184	\$214	\$3,835	\$673,082

• Source: Cambridge Systematics, Inc., 2005.

Figure 6.3 1998 Values by County for All Modes

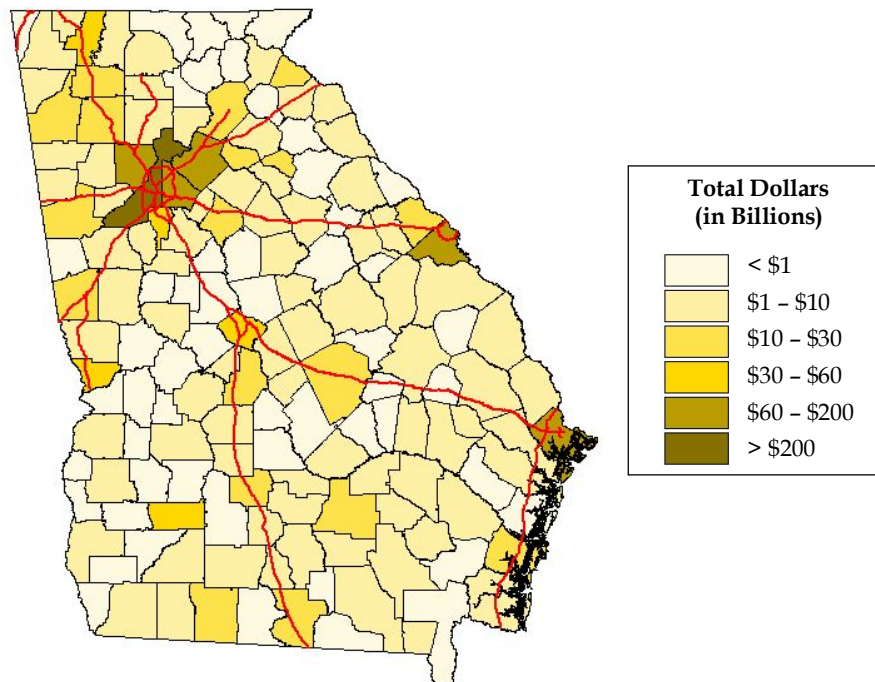


– **Table 6.3 2035 County Tonnage Flows by Mode**
Tons to, from, and within (in Thousands)

County	Urban Area	Trucks	Rail	Water	Air	Total
Fulton	Atlanta	292,639	23,922	–	3,294	319,855
Chatham	Savannah	67,380	13,718	2,106	10	83,214
Gwinnett	Atlanta	72,695	5,208	–	–	77,903
Richmond	Augusta	37,578	9,542	–	0	47,121
DeKalb	Atlanta	43,927	3,142	–	–	47,070
Bibb	Macon	34,140	5,013	–	0	39,153
Cobb	Atlanta	29,115	3,356	–	–	32,471
Hall	Gainesville	19,075	4,656	–	–	23,730
Clayton	Atlanta	22,251	1,419	–	–	23,669
Bartow	Atlanta	7,455	12,693	–	–	20,147
Muscogee	Columbus	18,814	963	–	1	19,779
Dougherty	Albany	18,281	604	–	10	18,895
Clarke	Athens	15,458	1,603	–	–	17,061
Monroe	N/A	408	15,759	–	–	16,166
Floyd	Rome	10,953	4,865	–	–	15,818
Remaining 144 Counties		326,337	90,039	27	0	416,403
Grand Total		1,016,504	196,505	2,133	3,316	1,218,459

- Source: Cambridge Systematics, Inc., 2005.

Figure 6.4 2035 Values by County for All Modes



– **Table 6.4 2035 County Value Flows by Mode**
Dollars to, from, and within (in Millions)

County	Urban Area	Trucks	Rail	Water	Air	Total
Fulton	Atlanta	\$607,919	\$44,044	\$0	\$14,246	\$687,013
Gwinnett	Atlanta	\$187,156	\$0	\$0	\$0	\$210,961
Chatham	Savannah	\$143,120	\$7,187	\$438	\$61	\$160,699
DeKalb	Atlanta	\$91,980	\$0	\$0	\$0	\$98,964
Richmond	Augusta	\$75,089	\$0	\$0	\$2	\$84,170
Cobb	Atlanta	\$69,022	\$0	\$0	\$0	\$70,053
Bibb	Macon	\$55,210	\$0	\$0	\$0	\$57,819
Clayton	Atlanta	\$47,222	\$0	\$0	\$0	\$49,122
Dougherty	Albany	\$40,718	\$0	\$0	\$57	\$41,473
Muscogee	Columbus	\$39,085	\$0	\$0	\$9	\$39,598
Whitfield	Dalton	\$31,816	\$124	\$0	\$0	\$34,998
Hall	Gainesville	\$29,411	\$0	\$0	\$0	\$33,933
Clarke	Athens	\$27,296	\$0	\$0	\$0	\$28,594
Glynn	Brunswick	\$20,855	\$0	\$4	\$0	\$24,648
Lowndes	Valdosta	\$15,704	\$0	\$0	\$0	\$21,240
Remaining 144 Counties		\$519,417	\$247	\$2	\$–	\$ 572,086
Grand Total		\$2,001,013	\$51,602	\$444	\$14,376	\$2,215,368

- Source: Cambridge Systematics, Inc., 2005.

7.0 Routes

- Currently, the highways in Georgia that transport the largest volumes of Georgia's freight by both weight and value are the interstate highways.
 - The section of highway that transports the highest tonnage and value is the section of I-75 between Atlanta and Macon with volumes in excess of 90 million tons per year with a value of over \$175 billion, or roughly 14,000 freight trucks per day.
 - While the interstate highways will remain the principal facilities transporting truck freight in Georgia, roads that are part of the GRIP system in rural areas and other roads that connect urban areas to the interstates are forecast to carry significant volumes in the future. I-75 between Atlanta and Macon is forecast to carry the most freight with volumes in excess of 250 million tons per year worth over \$500 billion. This volume on I-75 will equate to over 40,000 freight trucks per day.
 - Georgia's two Class I railroads, Norfolk Southern and CSX, transport most of the rail freight in Georgia. Like the highway system, the railroad tracks join to form a hub in Atlanta. While there are fewer rail tracks than highways, the volumes of freight carried by the most heavily used section of track is comparable to those carried by the interstate highways.
 - The rail tracks that transport the largest volume of freight are the CSX mainline between Atlanta and Chattanooga and the NS mainline from Macon through Atlanta to Chattanooga, which carries between 800 and 1,600 loaded rail cars per day.
 - Even though its mode share is forecast to decline, the rail tonnage carried is expected to double on the major rail tracks by 2035, but the current major routes are forecast to remain the only major routes in 2035.
 - The water cargo is primarily limited to the Ports of Savannah and Brunswick, which primarily serve international freight cargo shipments that are then distributed domestically by truck and rail.
 - Air cargo activity in Georgia is almost exclusively centered at HJAI. While current tonnage is small, the value per ton is high and air cargo is forecast to increase by 288 percent by 2035. Activity at other airports will fill a niche role.
 - HJAI is the busiest passenger airport in the U.S. but only the 15th busiest cargo airport. There would appear to be potential to more fully utilize the cargo potential in the belly holds of the passenger aircraft.
- The facilities used to transport freight in Georgia principally by highway and rail, were identified by using information included in the TRANSEARCH database. TRANSEARCH includes the highway paths used by truck shipments for each specific origin, destination, and commodity record. It also includes the rail paths used by carload and intermodal container rail shipments for each specific origin, destination, and commodity. These paths, which are sequences of segments of the highway and rail networks, were used to identify the routes in Georgia with the highest volumes of freight. The shipments by air and water are only identified by the county in which the port or airport is located.

■ 7.1 Trucking

- The highway network from which the paths were identified was developed from the Georgia portion of the U.S. DOT's National Highway Planning Network (NHPN) which includes interstate, principal, and major arterial highways. The freight database only identifies freight within Georgia by its origin or destination county; therefore, movements within counties are not shown and the detailed flow to specific locations within counties cannot be determined. Freight shipments for origins and destinations outside of Georgia are identified by the point through which they cross Georgia's borders. The information is suitable for identifying the major highway facilities used to transport freight.
- As shown in Figures 7.1 and 7.2, the principal highways currently used in the transport of freight are Georgia's interstate highways, by both weight and value. This is not surprising given that freight shipments in Georgia are primarily of commodities that support the service industries in Georgia's urban areas and the interstate system connects these urban areas. The section of the interstate that transports the highest tonnage in Georgia is I-75 between Atlanta and Macon, with some sections transporting over 90 million tons per year. At an average payload of 17 tons per truck, this equates to 530,000 trucks per year or almost 14,000 freight trucks per day. This is also the section of highway that carries the highest value of freight, with some sections carrying freight valued at over \$175 billion per year.
- As shown in Figures 7.3 and 7.4, while the interstate highways remain important to the transport of freight, many principal arterials are forecast to transport amounts comparable to the existing volumes on the interstates. Sections of roads that are part of the GRIP system, such as U.S. 280/U.S. 82 (the South Georgia Parkway), the Fall Line Freeway between Macon and Augusta, U.S. 441, as well as roads providing other access between the interstate system and urban areas, such as SR 300 between Albany and I-75, are forecast to carry tonnages in excess of 10 million tons and values in excess of \$25 billion per year. The section of highway that is forecast to carry the most freight in 2035 will remain I-75 from Atlanta to Macon which is forecast to carry 250 million tons per year worth \$500 billion. At an average of 17 tons per truck, this equates to 40,000 freight trucks per day.

Figure 7.1 1998 High-Tonnage Truck Corridors

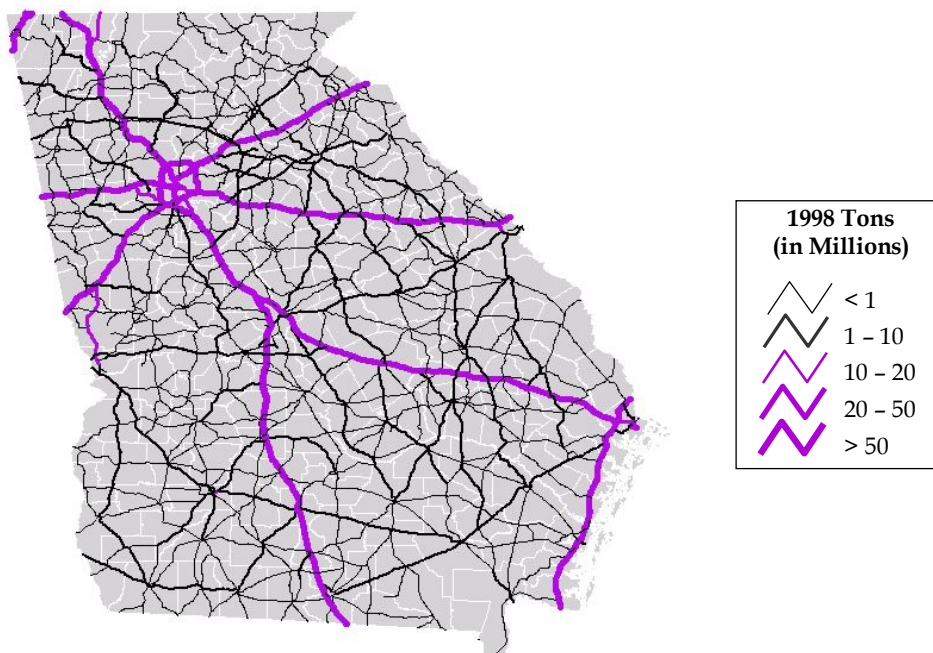


Figure 7.2 1998 High-Value Truck Corridors

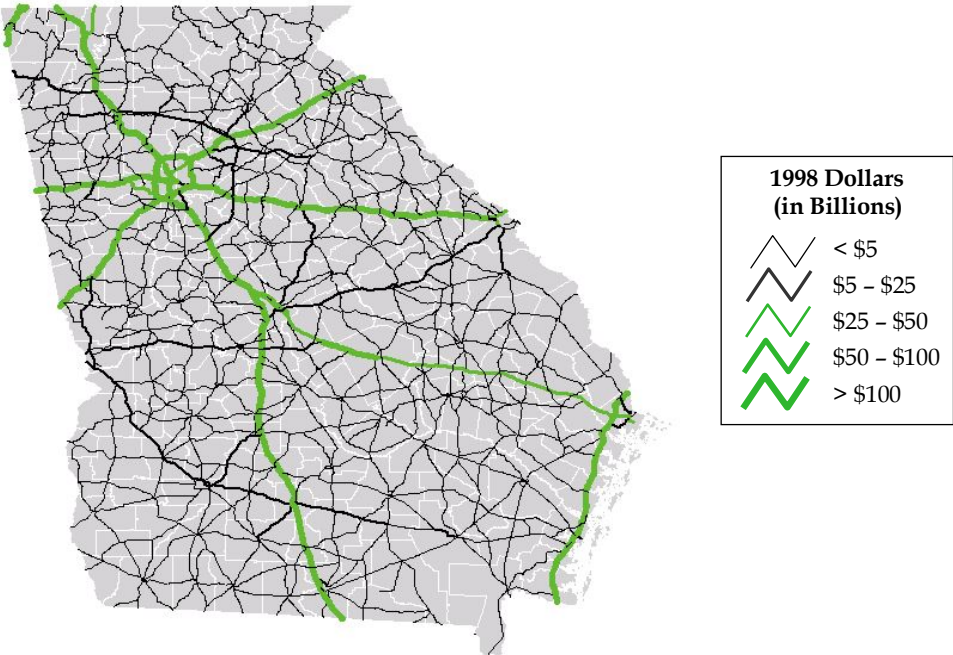


Figure 7.3 2035 High-Tonnage Truck Corridors

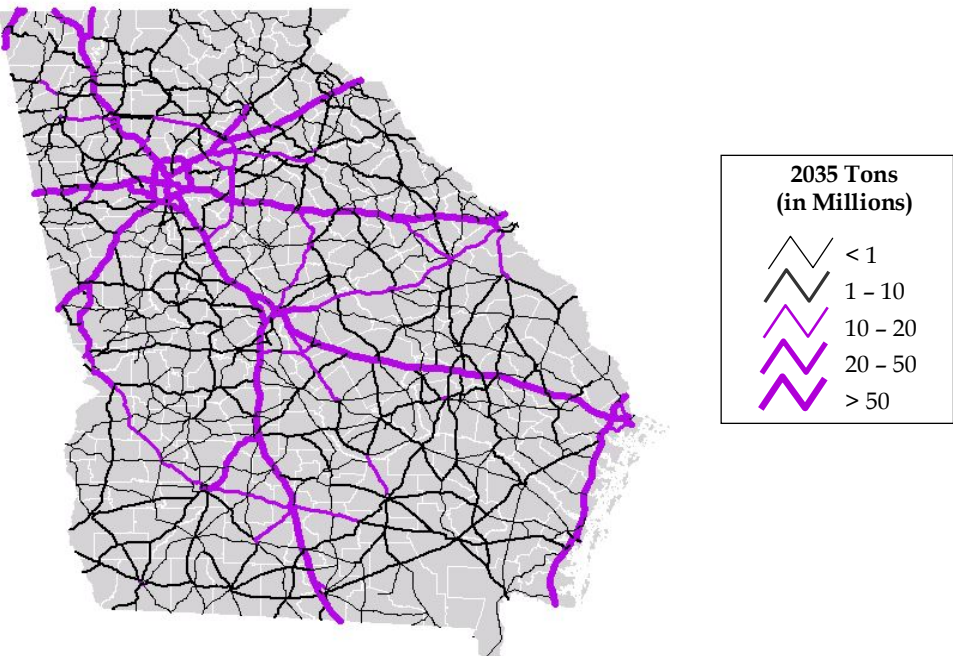
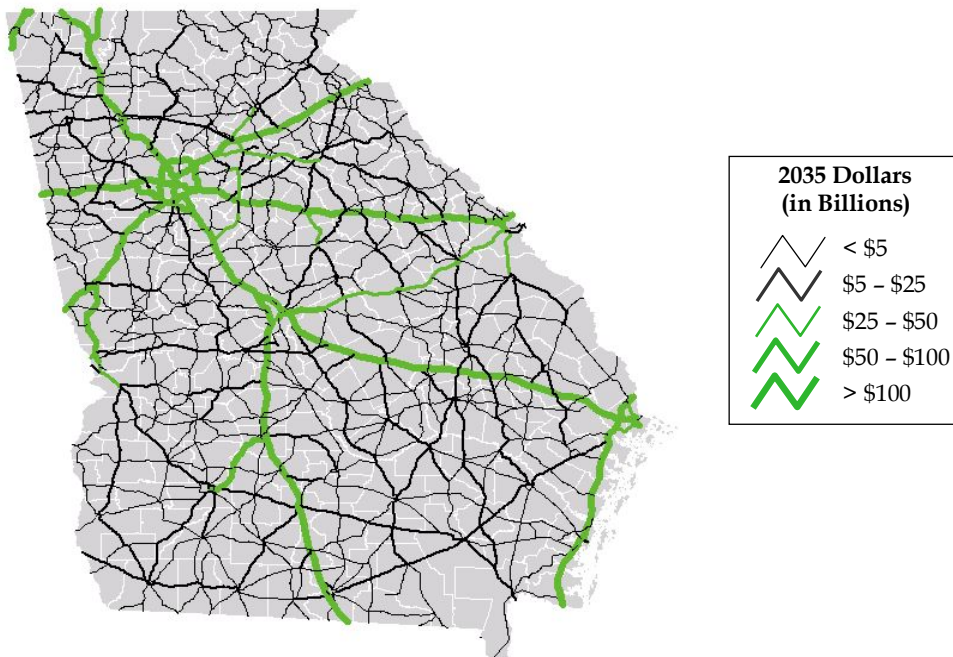


Figure 7.4 2035 High-Value Truck Corridors



■ 7.2 Rail

– The rail network from which the paths were identified was developed from the Georgia portion of the Federal Railroad Administration’s (FRA) National Railroad Network. It represents Class I, Regional, and Short-Line railroads identified by owner. The freight database only identifies freight within Georgia by its origin or destination county; therefore, movements on the rail network within counties are not shown and the detailed flow to specific locations within counties cannot be determined. Freight shipments for origins and destinations outside of Georgia are identified by the point through which they cross Georgia’s borders. The information is suitable for identifying the major rail facilities used to transport freight.

– As shown in Figures 7.5 and 7.6, tracks owned by the two Class I railroads in Georgia, Norfolk Southern and CSX, currently carry the highest volumes of freight by tonnage and value. The highest volumes on the NS system are on the main track between Macon and Chattanooga through Atlanta which currently carries freight with a weight from 20 million to 40 million tons and with a value of from \$40 billion to \$60 billion per year. This equates to 800 to 1,600 loaded rail cars per day. The highest freight volumes on the CSX system are the main track between Atlanta and Chattanooga, which currently carries freight with a weight from 20 million to 30 million tons and a value of from \$20 billion to \$50 billion per year. The regional and short-line railroads provide important accessibility to other locations in Georgia, but the volumes of freight that they carry are much lower than those of the Class I railroads.

– As shown in Figures 7.7 and 7.8, tracks owned by the two Class I railroads in Georgia, Norfolk Southern and CSX, are forecast to continue to transport the highest volumes of freight by tonnage and value. The highest volumes on the NS system are still forecast to be on the main track between Macon and Chattanooga through Atlanta where freight is forecast to double to a weight from 20 million to 40 million tons and a value of from \$60 billion to \$120 billion per year, which equates to 1,600 loaded rail

cars per day. The highest freight volumes on the CSX system are forecast to be on the main track between Atlanta and Chattanooga which also is forecast to double to carry freight with a weight from 40 to 60 million tons and a value of from \$40 billion to \$100 billion per year, which equates to 2,400 loaded rail cars per day. Unlike the highway system where GRIP roads such as the Fall Line Freeway are forecast to emerge as significant freight highways, the growth in rail freight is primarily along existing major tracks and no new routes are forecast to become significant. The regional and short-line railroads are forecast to continue to provide important accessibility to other locations in Georgia, but the volumes of freight that they carry are much lower than the volumes of the Class I railroads. Even with the forecast doubling of the freight carried by rail routes, the rail mode share is forecast to decline.

Figure 7.5 1998 High-Tonnage Rail Corridors

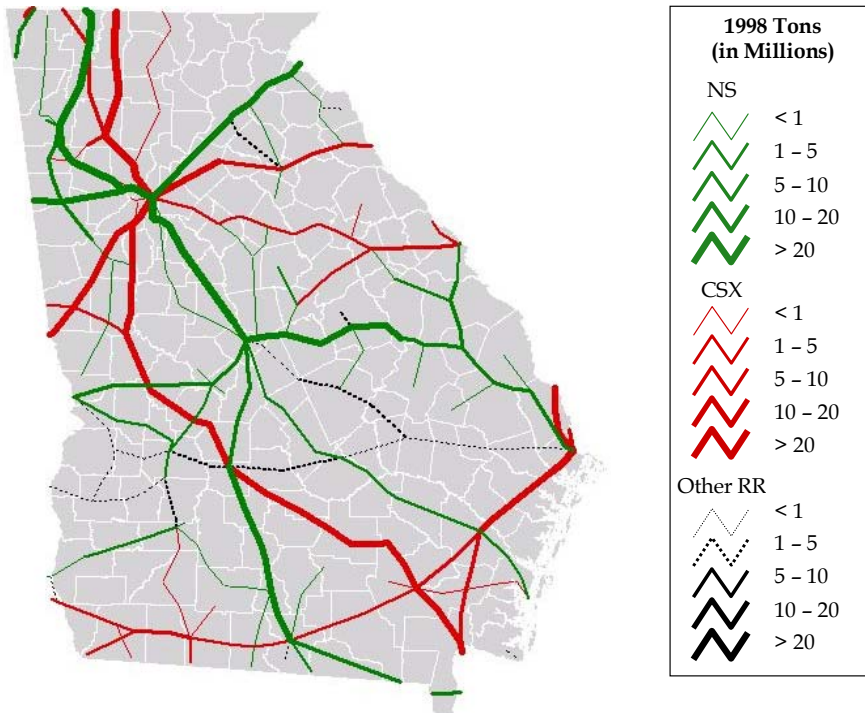


Figure 7.6 1998 High-Value Rail Corridors

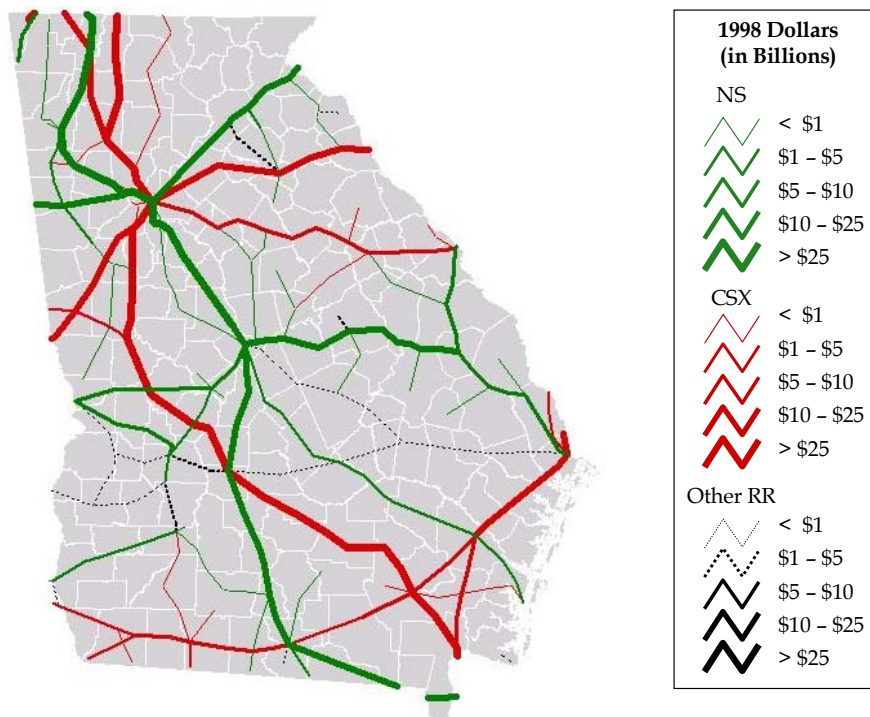


Figure 7.7 2035 High-Tonnage Rail Corridors

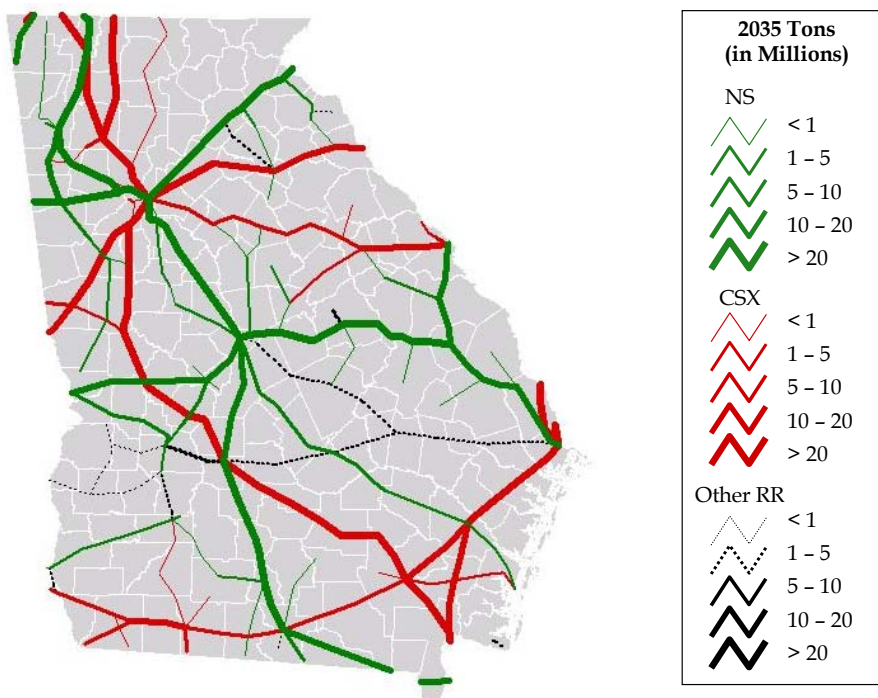
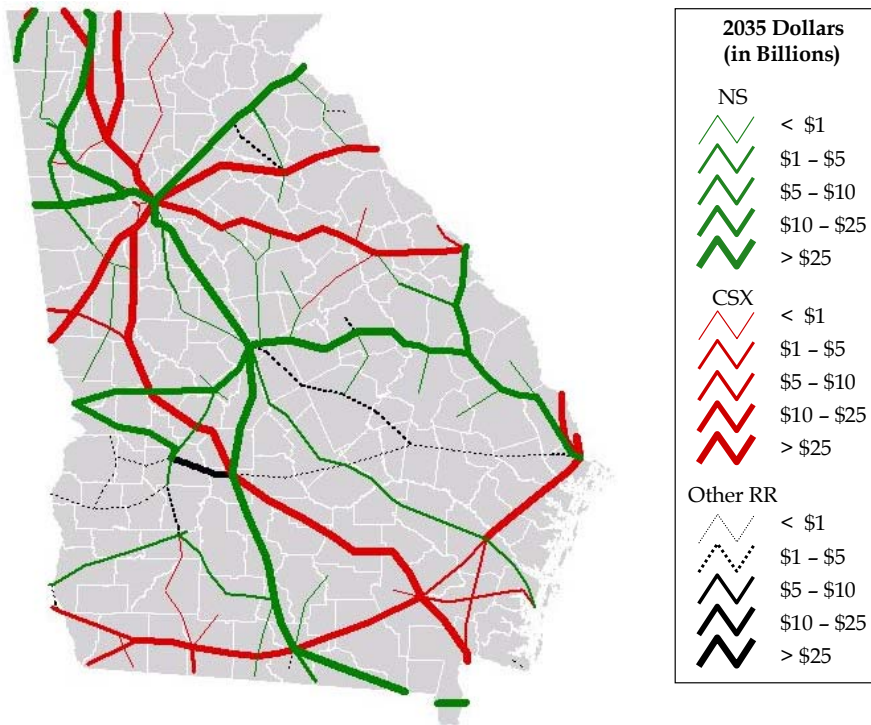


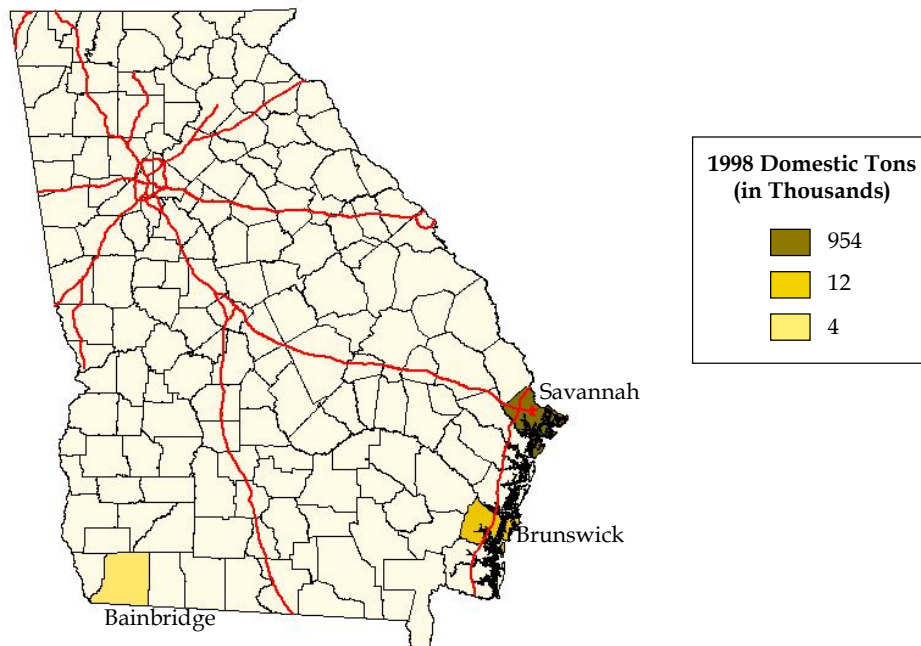
Figure 7.8 2035 High-Value Rail Corridors



■ 7.3 Water

– The water system in Georgia, as shown in Figure 7.9, is primarily confined to the ports of Brunswick and Savannah on the Atlantic Ocean and, to a lesser extent, the port of Bainbridge on the Flint River which accesses the Gulf of Mexico via the Apalachicola River. (The Port of Columbus in Muscogee County reported volumes of less than 1,000 tons per year in the 1998 TRANSEARCH database). The port of Savannah is by far the largest of the ports. The freight shipments shown in the TRANSEARCH database account for only domestic water freight. As discussed in Section 5.0, the Ports of Savannah and Brunswick are primarily used to ship international cargo by water. The TRANSEARCH database only shows the truck or rail domestic portion of this international water shipment. Domestic water freight is forecast to grow by 71 percent by 2035, but the mode share is declining and the relative importance of the ports is forecast to remain the same.

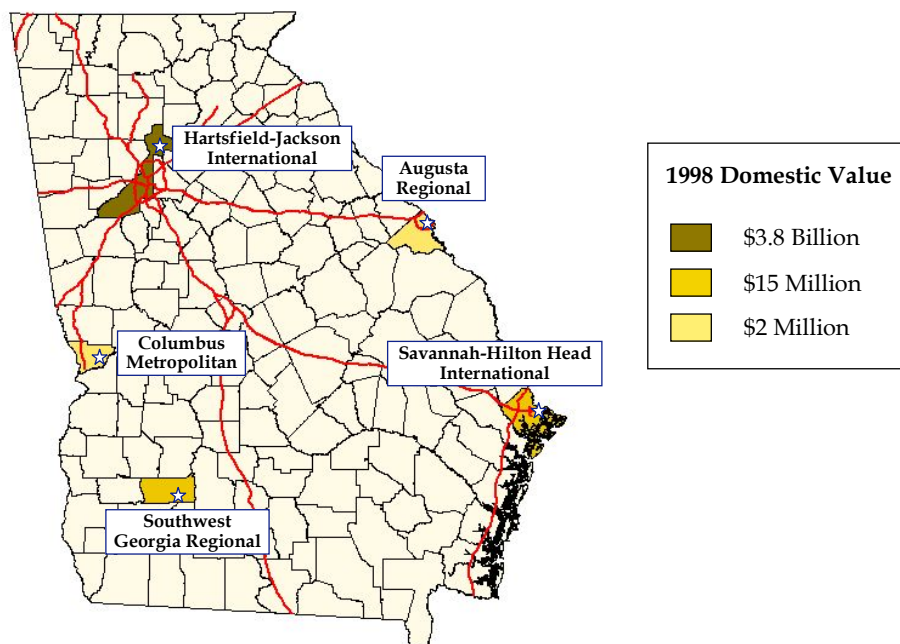
Figure 7.9 1998 Water Freight Domestic Tons



■ 7.4 Air

– Air cargo in Georgia, as shown in Figure 7.10, is dominated by HJAIA in Fulton County. HJAIA handles more than 848,000 tons of domestic air cargo per year with a value of \$3.8 billion, which is more than 99 percent of all air cargo activity in Georgia. The only other airports in Georgia that are reported in TRANSEARCH as handling more than 1,000 tons per year are Chatham County’s Savannah-Hilton International Airport and Dougherty County’s Southwest Georgia Regional Airport which each handle a reported 3,000 tons per year worth \$1.5 million. In 2035, HJAIA is still forecast to handle almost all air cargo activity in Georgia with an expected 3.2 million tons of domestic air cargo with a value of \$14.2 billion, which continues to represent over 99 percent of all domestic air cargo in Georgia. In addition to Southwest Regional and Savannah-Hilton International, Muscogee County’s Columbus Metropolitan and Richmond County’s Augusta Regional Airports are also forecast by 2035 to transport domestic air cargo with a value in excess of \$1 million per year.

Figure 7.10 1998 Air Freight Domestic Value



– HJAIA is the busiest passenger airport in the United States with a reported 39 million passenger enplanements in 2003, almost 20 percent more than Chicago's O'Hare the second busiest airport. However, as reported by the Federal Aviation Administration, HJAIA's landed weight of 2.3 million tons in 2003 ranks only 15 among U.S. airports, significantly less than the 17.5 millions tons landed at Memphis International, a major hub for FedEx. Air cargo is carried both in dedicated cargo airplanes, such as FedEx planes, and as belly cargo in passenger planes. While the passenger activity at HJAIA is expected to exclude the possibility of dedicated cargo planes to the degree utilized in Memphis, the volumes of passenger planes could support belly cargo operations which would increase the cargo ranking of HJAIA.